

Safety Data Sheet

Material: 60011000

WACKER® CATALYST T 51

Version: 2.2 (INTL-GHS)

Date of print: 23.03.2021

Date of last alteration: 20.11.2019

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1 Product identifier****Commercial product name:** WACKER® CATALYST T 51**1.2 Relevant identified uses of the substance or mixture and uses advised against**

Use of substance / preparation:

Industrial.

Intermediate chemical

1.3 Details of the supplier of the safety data sheet

Manufacturer/distributor:

Wacker Chemie AG

Street/POB-No.:

Hanns-Seidel-Platz 4

State/postal code/city:

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Information about the Safety Data Sheet:

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1.4 Emergency telephone number**Emergency Information:****Europe****+44 1235 239670****Emergency Information:****Africa and the Middle East****+44 1235 239671****Emergency Information:****Caribbean, Central America and South****+1 646 844 7309****America except Chile and Colombia****Emergency Information:****Chile****+56 2 2582 9336****Emergency Information:****Colombia****+57 1 508 7337****Emergency Information:****East Asia and Southeast Asia except****+65 3158 1074****Sri Lanka, Bangladesh and Pakistan****Emergency Information:****Sri Lanka****+65 3158 1195****Emergency Information:****Bangladesh****+65 3158 1200****Emergency Information:****Pakistan****+65 3158 1329****SECTION 2: Hazards identification****2.1 Classification of the substance or mixture**

Hazard class	Hazard category	Route of exposure
Specific target organ toxicity - repeated exposure	Category 2	
Long-term (chronic) aquatic hazard	Category 3	
Flammable liquids	Category 3	
Reproductive toxicity	Category 2 (developmental toxicity)	

2.2 Label elements

Pictogram(s):



Signal Word: Warning

H-Code	Hazard Statements
H226	Flammable liquid and vapour.
H361d	Suspected of damaging the unborn child.
H373	May cause damage to organs through prolonged or repeated exposure.
H412	Harmful to aquatic life with long lasting effects.

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P-Code	Precautionary Statements
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P243	Take action to prevent static discharges.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P403+P235	Store in a well-ventilated place. Keep cool.
P501	Dispose of contents/container to waste disposal.

Hazard ingredients (labelling):Silicic acid (H₄SiO₄), tetraethyl ester, reaction products with bis(acetyloxy)dioctylstannane

The following percentage of the mixture consists of ingredient(s) with unknown acute oral toxicity: 66,5 %.

The following percentage of the mixture consists of ingredient(s) with unknown acute dermal toxicity: 98 %.

The following percentage of the mixture consists of ingredient(s) with unknown acute inhalation toxicity: 73,2 %.

The following percentage of the mixture consists of ingredient(s) with unknown hazards to the aquatic environment: 73,2 %.

Code	Additional Labelling
EUH208	Contains benzenesulfonic acid, mono-C16-24-alkyl derivs., calcium salts. May produce an allergic reaction.

2.3 Other hazards

No data available.

SECTION 3: Composition/information on ingredients**3.1 Substances**

not applicable

3.2 Mixtures**3.2.1 Chemical characteristics**

Organotin compound + Silicic acid ester + auxiliary

3.2.2 Hazardous ingredients

EC-No.	CAS No.	Substance	Content %
		Base oil - unspecified	>=1 – <10
300-346-5	93925-43-0	Silicic acid (H ₄ SiO ₄), tetraethyl ester, reaction products with bis(acetyloxy)dioctylstannane	>=3 – <5
265-158-7	64742-55-8	hydrotreated light paraffinic distillates	>=1 – <5
269-595-4	68299-15-0	Bis(neodecanoyloxy)dioctylstannane	>=1 – <5
274-263-7	70024-69-0	Benzenesulfonic acid, mono-C16-24-alkyl derivs., calcium salts	>=0,1 – <1
310-154-3	121158-58-5	Dodecylphenol, branched	>=0,025 – <0,1

Hydrocarbon mixtures were classified in accordance with the applicable notes in Annex VI of Regulation (EC) No. 1272/2008.

This product does not contain substances of very high concern (Regulation (EC) No 1907/2006 (REACH), Article 57) in amounts above ≥ 0.1%.

SECTION 4: First aid measures**4.1 Description of first aid measures****General information:**

Take persons to a safe place. Observe self-protection for first aid. Pregnant women exposed to this substance must seek medical advice.

After contact with the eyes:

Rinse immediately with plenty of water for 10-15 minutes. Keep eyelids well open to rinse the whole eye surface and eyelids with water. Seek medical advice in case of continuous irritation.

After contact with the skin:

Wipe off excess material with cloth or paper. Remove contaminated or soaked clothing. Immediately rinse with plenty of soap and water. In serious cases, use emergency shower immediately. In the event of a visible skin change or other complaints, seek medical advice (show label or SDS where possible).

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After inhalation:

Keep the patient calm. If unconscious place in stable sideways position. Protect against loss of body heat. Seek medical advice and clearly identify substance.

After swallowing:

If conscious, give several small portions of water to drink. Do not induce vomiting. Seek medical advice and clearly identify substance.

4.2 Most important symptoms and effects, both acute and delayed

Any relevant information can be found in other parts of this section.

4.3 Indication of any immediate medical attention and special treatment needed

Further toxicology information in section 11 must be observed. After exposure, it is recommended that you seek specialist medical advice. Product contains reproductive toxins (may cause harm to the unborn child and /or impairs male or female reproductive function).

SECTION 5: Firefighting measures**5.1 Extinguishing media****Suitable extinguishing media:**

alcohol-resistant foam , carbon dioxide , water mist , sprinkler system , sand , extinguishing powder .

Extinguishing media which must not be used for safety reasons:

water jet .

5.2 Special hazards arising from the substance or mixture

Risk of hazardous gasses or fumes in the event of fire. Exposure to combustion products may be a health hazard! Hazardous combustion products: toxic and very toxic fumes .

5.3 Advice for firefighters**Special protective equipment for fire fighting:**

Use respiratory protection independent of recirculated air. Keep unprotected persons away.

General information:

Cool endangered containers with water. Heating leads to increased pressure and bursting of the container. Dispose of combustion residue and extinguishing water in accordance with regulations and local bye-laws.

SECTION 6: Accidental release measures**6.1 Personal precautions, protective equipment and emergency procedures**

Secure the area. Wear personal protection equipment (see section 8). Keep unprotected persons away. Avoid contact with eyes and skin. Do not inhale gases/vapours/aerosols. If material is released indicate risk of slipping. Do not walk through spilled material.

6.2 Environmental precautions

Prevent material from entering surface waters, drains or sewers and soil. Close leak if possible without risk. Contain any fluid that runs out using suitable material (e.g. earth). Retain contaminated water/extinguishing water. Dispose of in prescribed marked containers. Inform authorities if substance leaks into surface waters, sewerage or ground.

6.3 Methods and material for containment and cleaning up

Take up mechanically and dispose of according to local/state/federal regulations. Do not flush away with water. For small amounts: Absorb with a neutral (non-acidic / non-basic) liquid binding material such as diatomaceous earth and dispose of according to government regulations. For large amounts: Liquids may be recovered using suction devices or pumps. If flammable, only air driven or properly rated electrical equipment should be used. Clean any slippery coating that remains using a detergent / soap solution or another biodegradable cleaner. Silicone fluids are slippery; spills are a safety hazard. Apply sand or other inert granular material to improve traction.

Further information:

Exhaust vapours. Eliminate all sources of ignition. Consider explosion protection. Observe notes under section 7.

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6.4 Reference to other sections

Relevant information in other sections has to be considered. This applies in particular for information given on personal protective equipment (section 8) and on disposal (section 13).

SECTION 7: Handling and storage

7.1 Precautions for safe handling

General information:

Avoid exposure by technical measures or personal protective equipment.

Precautions for safe handling:

Ensure adequate ventilation. Must be syphoned off in situ. Spilled substance increases risk of slipping. Avoid formation of aerosols. In case of aerosol formation special protective measures are required (exhausting by suction, respiratory protection). Observe information in section 8. Keep away from incompatible substances in accordance with section 10.

Precautions against fire and explosion:

Flammable vapors may accumulate and form explosive mixtures with air in containers, process vessels, including partial, empty and uncleaned containers and vessels, or other enclosed spaces. Keep away from sources of ignition and do not smoke. Take precautionary measures against electrostatic charging. Cool endangered containers with water.

7.2 Conditions for safe storage, including any incompatibilities

Conditions for storage rooms and vessels:

Observe local/state/federal regulations.

Advice for storage of incompatible materials:

Observe local/state/federal regulations.

Further information for storage:

Store in a dry and cool place. Protect against moisture. Store container in a well ventilated place.

7.3 Specific end use(s)

No data available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Maximum airborne concentrations at the workplace:

CAS No.	Substance	Type	mg/m ³	ppm	Dust fract.	Fibre/m ³
	Aerosol - inhalable fraction		10,0			

The aerosol limit specified is a recommendation should aerosol be formed during processing.

8.2 Exposure controls

8.2.1 Exposure in the work place limited and controlled

General protection and hygiene measures:

Avoid exposure - obtain special instructions before use. Avoid exposure of the substance to pregnant women. Avoid contact with eyes and skin. Do not inhale gases/vapours/aerosols. Use with adequate ventilation. Preventive skin protection recommended. Remove contaminated, soaked clothing immediately. Clean work areas regularly. Wash hands at the end of work and before eating. Provide emergency shower and eye-bath. Keep working clothes separately. Do not eat, drink or smoke when handling. Keep away from foodstuff, drink and feedingstuff.

Personal protection equipment:

Respiratory protection

If inhalative exposure above the occupational exposure limit cannot be excluded, adequate respiratory protection equipment must be used. Suitable respiratory equipment: Respirator with a full face mask, according to acknowledged standards such as EN 136. Recommended Filter type: Gas filter type ABEK (certain inorganic, organic and acidic gases and vapors; ammonia/amines), according to acknowledged standards such as EN 14387

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In case of mist, spray or aerosol exposure wear suitable personal respiratory protection and protective suit. Suitable respiratory equipment: Respirator with a full face mask, according to acknowledged standards such as EN 136.

Recommended Filter type: Combined filter type ABEK-P2 (certain inorganic, organic and acidic gases and vapors; ammonia/amines; particles), according to acknowledged standards such as EN 14387

For long or intense exposure, use respiratory protective equipment. Suitable respiratory equipment: Positive pressure self contained breathing apparatus, according to acknowledged standards such as EN 137.

Observe the equipment manufacturer's information and wear time limits for respirators.

Eye protection

tight fitting protective goggles .

Hand protection

Gloves are required at all times when handling the material.

Recommended glove types: Protective gloves made of butyl rubber

thickness of the material: > 0,3 mm

Breakthrough time: > 480 min

Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time.

Skin protection

If handled uncovered: Chemical protective clothing, full-body liquid-tight protection if necessary. Please observe the instructions regarding permeability time which are provided by the supplier.

8.2.2 Exposure to the environment limited and controlled

Prevent material from entering surface waters, drains or sewers and soil. Observe local waste water bye-laws for organo tin and tin compounds. Do not introduce large amounts into purification plants.

8.3 Further information for system design and engineering measures

Observe information in section 7. Observe national regulatory requirements.

SECTION 9: Physical and chemical properties**9.1 Information on basic physical and chemical properties**

Property:	Value:	Method:
Appearance		
Physical state	liquid	
Colour.....	red brown	
Odour		
Odour	faint	
Odour limit		
Odour limit.....	no data available	
pH-Value		
pH-Value	not applicable	
Melting point/freezing point		
Melting point / melting range	not determined	
Initial boiling point and boiling range		
Boiling point / boiling range	not applicable	
Flash point		
Flash point.....	45 °C	(DIN 51755)
Sustained combustibility	> 110 °C	(ISO 9038)
Evaporation rate		
Evaporation rate	no data available	
Upper/lower flammability or explosive limits		
Lower explosion limit (LEL)	not determined	
Upper explosion limit (UEL).....	not determined	
Vapour pressure		
Vapour pressure.....	not determined	

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Solubility(ies)

Water solubility / miscibility.....: virtually insoluble
Solubility in organic solvent.....: totally miscible with common organic solvents

Vapour density

Relative gas/vapour density.....: No data known.

Relative DensityRelative Density.....: ca. 0,92 (25 °C; 1013 hPa) (DIN 12791)
(Water / 4 °C = 1,00)Density.....: ca. 0,92 g/cm³ (25 °C; 1013 hPa) (DIN 12791)**Partition coefficient: n-octanol/water**

Partition coefficient: n-octanol/water.....: No data known.

Auto-ignition temperature

Ignition temperature.....: ca. 270 °C (DIN 51794)

Decomposition temperature

Thermal decomposition.....: approx. 300 °C (-)

Viscosity

Viscosity (dynamic).....: ca. 50 mPa.s at 23 °C (-)

Molecular mass

Molecular mass.....: not applicable

9.2 Other information

Solubility in water: Hydrolytic decomposition occurs. Hydrolysis products reduce the flash point.

SECTION 10: Stability and reactivity**10.1 – 10.3 Reactivity; Chemical stability; Possibility of hazardous reactions**

If stored and handled in accordance with standard industrial practices no hazardous reactions are known.

Relevant information can possibly be found in other parts of this section.

10.4 Conditions to avoid

moisture , Heat, open flames, and other sources of ignition.

10.5 Incompatible materials

Reacts with: water , basic substances and acids . Reaction causes the formation of: alcohols .

10.6 Hazardous decomposition products

If stored and handled properly: none known . Under the effect of humidity, water and protic agents: alcohols .

SECTION 11: Toxicological information**11.1 Information on toxicological effects****11.1.1 Acute toxicity****Assessment:**

For this endpoint no toxicological test data is available for the whole product.

Acute toxicity estimate (ATE):ATE_{mix} (Oral): > 5000 mg/kg**11.1.2 Skin corrosion/irritation****Assessment:**

For this endpoint no toxicological test data is available for the whole product.

11.1.3 Serious eye damage / eye irritation**Assessment:**

For this endpoint no toxicological test data is available for the whole product.

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11.1.4 Respiratory or skin sensitization**Assessment:**

For this endpoint no toxicological test data is available for the whole product.

11.1.5 Germ cell mutagenicity**Assessment:**

For this endpoint no toxicological test data is available for the whole product.

11.1.6 Carcinogenicity**Assessment:**

For this endpoint no toxicological test data is available for the whole product.

11.1.7 Reproductive toxicity**Assessment:**

For this endpoint no toxicological test data is available for the whole product.

11.1.8 Specific target organ toxicity (single exposure)**Assessment:**

For this endpoint no toxicological test data is available for the whole product.

11.1.9 Specific target organ toxicity (repeated exposure)**Assessment:**

For this endpoint no toxicological test data is available for the whole product.

11.1.10 Aspiration hazard**Assessment:**

For this endpoint no toxicological test data is available for the whole product.

SECTION 12: Ecological information

12.1 Toxicity**Assessment:**

No data known.

12.2 Persistence and degradability**Assessment:**

Contact with water liberates propanol and silanol- and/or siloxanol-compounds. Silicone content: biologically not degradable. Elimination by adsorption to activated sludge. The hydrolysis product (propanol) is readily biologically degradable.

12.3 Bioaccumulative potential**Assessment:**

No data known.

12.4 Mobility in soil**Assessment:**

No data known.

12.5 Results of PBT and vPvB assessment

No data available.

12.6 Other adverse effects

none known

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SECTION 13: Disposal considerations

13.1 Waste treatment methods

13.1.1 Material

Recommendation:

Material that cannot be used, reprocessed or recycled should be disposed of in accordance with Federal, State, and local regulations at an approved facility. Depending on the regulations, waste treatment methods may include, e.g., landfill or incineration.

13.1.2 Uncleaned packaging

Recommendation:

Completely discharge containers (no tear drops, no powder rest, scraped carefully). Containers may be recycled or re-used. Observe local/state/federal regulations. Uncleaned packaging should be treated with the same precautions as the material.

SECTION 14: Transport information

14.1 – 14.4 UN number; UN proper shipping name; Transport hazard class(es); Packing group

Road ADR:

Valuation: Not regulated for transport

Railway RID:

Valuation: Not regulated for transport

Transport by sea IMDG-Code:

Valuation: Not regulated for transport

Air transport ICAO-TI/IATA-DGR:

Valuation: Not regulated for transport

14.5 Environmental hazards

Hazardous to the environment: no

14.6 Special precautions for user

Road transport: Not regulated in Class 3 - ADR/RID 2.2.3.1.1 NOTE 1 - Substance does not sustain combustion!

Rail transport: Not regulated in Class 3 - ADR/RID 2.2.3.1.1 NOTE 1 - Substance does not sustain combustion!

Ship transport: Not regulated in Class 3 - IMDG 2.3.1.3 -
as the substance does not sustain combustion!

Air transport: Not regulated in Class 3 - IATA 3.3.1.3 / ICAO 3.1.3 - Substance does not sustain combustion!

Due to safety reasons no air transport in totes (IBC) or vented packaging!

Relevant information in other sections has to be considered.

14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code

Bulk transport in tankers is not intended.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

National and local regulations must be observed.

For information on labelling please refer to section 2 of this document.

15.2 Details of international registration status

Relevant information about individual substance inventories, where available, is given below.

Japan: **ENCS** (Handbook of Existing and New Chemical Substances):
This product is listed in, or complies with, the substance inventory.Australia: **AICS** (Australian Inventory of Chemical Substances):
This product is listed in, or complies with, the substance inventory.

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Canada	: DSL (Domestic Substance List): This product is not listed or in compliance with the substance inventory.
Philippines.....	: PICCS (Philippine Inventory of Chemicals and Chemical Substances): This product is not listed or in compliance with the substance inventory.
Taiwan	: TCSI (Taiwan Chemical Substance Inventory): This product is listed in, or complies with, the substance inventory. General note: The Taiwanese chemicals regulation requires a phase 1 registration for TCSI-listed or TCSI-compliant substances if imports to Taiwan or manufacturing in Taiwan exceed the trigger quantity of 100 kg/a (for mixtures to be calculated per each ingredient). It is the duty of the importing/manufacturing legal entity to take care of this obligation.
European Economic Area (EEA).....	: REACH (Regulation (EC) No 1907/2006): General note: the registration obligations for substances imported into the EEA or manufactured within the EEA by the supplier mentioned in section 1 are fulfilled by the said supplier. The registration obligations for substances imported into the EEA by customers or other downstream users must be fulfilled by the latter.
South Korea (Republic of Korea)	: AREC (Act on Registration and Evaluation of Chemicals; "K-REACH"): General note: in case of registration obligations for substances or polymers imported into Korea or manufactured within Korea these are fulfilled by the supplier mentioned in section 1. The registration obligations for substances or polymers imported into Korea by customers or other downstream users must be fulfilled by the latter.

SECTION 16: Other information**16.1 Material**

The details in this document are based on the state of our knowledge at the time of revision. They do not constitute an assurance of the described product properties in terms of statutory warranty requirements.

The providing of this document to a recipient does not relieve the recipient of his or her responsibility toward compliance with all laws and stipulations applicable to the product. This applies in particular to the further sale or distribution of the product or substances or items containing the product, in other jurisdictions and with regard to the protection of third-party intellectual property rights. If the described product is processed or mixed with other substances or materials, the details stated in this document cannot be conferred to the resultant new product unless this has been expressly mentioned. If the product is repackaged, the recipient is obligated to additionally provide the required safety-related information.

WACKER restricts the use of its products inside the human body or in contact with bodily fluids and mucosa. For further details please review our Health Care Policy on www.wacker.com. WACKER may cancel any delivery obligation(s) if the Health Care Policy is not observed.

16.2 Further information:

Commas appearing in numerical data denote a decimal point. Vertical lines in the left-hand margin indicate changes compared with the previous version. This version supersedes all previous versions.

Classification	Rationale:
Specific target organ toxicity - repeated exposure, Category 2	Calculation method
Long-term (chronic) aquatic hazard, Category 3	Calculation method
Flammable liquids, Category 3	On basis of test data.
Reproductive toxicity, Category 2 (developmental toxicity)	Calculation method

- End of Safety Data Sheet -